

What is claimed is:

1. A duplex image forming device comprising:

an image forming device which includes a paper transportation path, a paper feed unit which transports a paper to the paper transportation path, a printing unit which prints an image onto the paper, and a discharge tray where the paper printed with the image is discharged; and

a reversible transportation unit which includes a main body having a contacting surface that contacts against a side of the image forming device, a reversible transportation path which transports-in the paper from a downstream side of the printing unit and transports-out the paper to an upstream side of the printing unit in the paper transportation path, transportation rollers which transport the paper through the reversible transportation path, and a motor which drives the transportation rollers and is disposed protruding outward from the contacting surface of the main body frame so that at least a part of the motor is disposed in the image forming device when the reversible transportation unit is inserted into the image forming device.

2. The duplex image forming device according to claim 1, further comprising a cover member which covers the part of the motor that is protruding outward from the contacting surface.

3. The duplex image forming device according to claim 2, wherein the cover member is provided in the reversible transportation unit.

4. The duplex image forming device according to claim 1, wherein the paper transportation path is formed from the paper feed unit upward in a vertical direction and connected to the discharge tray.

5. The duplex image forming device according to claim 1, wherein the image forming device further comprises a storage opening which is provided at a side of the image forming device, a manual paper feed tray which swings between a closed position disposed at the storage opening, and an opened position disposed away from the storage opening, and a swing shaft which supports the manual paper feed tray rotatable.

6. The duplex image forming device according to claim 5, wherein the reversible transportation unit is inserted above the manual paper feed tray.

7. The duplex image forming device according to claim 6, wherein the reversible transportation unit comprises a protrusion to be inserted into the storage opening.

8. The duplex image forming device according to claim 7, wherein an upper part and a lower part of the reversible

transportation path are slanted, and the transportation rollers are disposed at the slanting path, respectively.

9. The duplex image forming device according to claim 8, wherein at least a part of the transportation rollers is disposed at the protrusion.

10. The duplex image forming device according to claim 1, wherein the reversible transportation unit includes a gear mechanism which transfers a drive from the motor, and a supporting plate which attaches the motor and the gear mechanism.

11. The duplex image forming device according to claim 10, wherein at least a part of the gear mechanism is disposed outward from the contacting surface.

12. The duplex image forming device according to claim 5, wherein a storage unit which stores the manual paper feed tray is formed on the main body frame of the reversible transportation unit.

13. The duplex image forming device according to claim 12, further comprising means for holding the manual paper feed tray under a state stored in the storage unit.

14. The duplex image forming device according to claim 1, wherein the image forming device further comprises an opening formed

at the side of the image forming device for inserting the part that is protruding outward from the contacting surface of the motor.

15. The duplex image forming device according to claim 14, wherein the image forming device further comprises a cover plate which covers the opening.

16. A reversible transportation unit inserted into an image forming device, comprising:

a main body frame which has a contacting surface that contacts against a side of the image forming device;

a reversible transportation path which transports-in a paper from a downstream side of a printing unit of a paper transportation path of the image forming device and transports-out the paper to an upstream side of the printing unit;

transportation rollers which transport the paper in the reversible transportation path; and

a motor which drives the transportation rollers and is disposed protruding outward from the contacting surface of the main body frame so that at least a part of the motor is disposed in the image forming device when the reversible transportation unit is inserted into the image forming device.

17. The reversible transportation unit according to claim 16, further comprising a cover member which covers the part that is protruding outward from the contacting surface of the motor.

18. The reversible transportation unit according to claim 16, wherein the image forming device comprises a manual paper feed tray, and the reversible transportation unit is inserted above the manual paper feed tray.

19. The reversible transportation unit according to claim 18, wherein the image forming device comprises a storage unit which is disposed at a side of the image forming device and stores the manual paper feed tray, and the reversible transportation unit further comprises a protrusion to be inserted into the storage opening.

20. The reversible transportation unit according to claim 19, wherein an upper part and a lower part of the reversible transportation path are slanting, and the transportation rollers are disposed at the slanting path, respectively.

21. The reversible transportation unit according to claim 20, wherein at least a part of the transportation rollers is disposed at the protrusion.

22. The reversible transportation unit according to claim 16, further comprising:

a gear mechanism which transfers a drive from the motor; and
a supporting plate which attaches the motor and the gear mechanism.

23. The reversible transportation unit according to claim 22, wherein at least a part of the gear mechanism is disposed outward from the contacting surface.

24. The reversible transportation unit according to claim 18, wherein a storage unit is formed on the main body frame for storing the manual paper feed tray.

25. The reversible transportation unit according to claim 24, further comprising means for supporting the manual paper feed tray under a stored state in the storage unit.

26. An image forming device which a reversible transportation unit is inserted therein, comprising:

- a paper transportation path;

- a paper feed unit which transports a paper to the paper transportation path;

- a printing unit which prints an image onto the paper;

- a discharge tray where the paper printed with the image is discharged; and

- an opening which is formed on a side where the reversible transportation unit is inserted in contact with the image forming device, and a part protruding outward from the contacting surface of the motor of the reversible transportation unit is inserted into the opening.

27. The image forming device according to claim 26, further comprising a cover plate which covers the opening.

28. The image forming device according to claim 26, wherein the paper transportation path is formed from the paper feed unit upward in a vertical direction and connected to the discharge tray.

29. The image forming device according to claim 26, further comprising:

a storage opening which is provided at a side of the image forming device;

a manual paper feed tray which swings between a closed position disposed at the storage opening and an opened position disposed away from the storage opening; and

a swing shaft which supports the manual paper feed tray rotatable.